

REMARKS/ARGUMENTS

Claims 1, 3-8 and 10-13 are pending, claims 7, 8 and 10-13 having been withdrawn from consideration. By this Amendment, claim 1 is amended. Support for the amendments to claim 1 can be found, for example, in the present specification at paragraphs [0021] and [0022], and in original claims 1-13. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Withdrawn Claims

For the reasons set forth below, Applicants submit that all pending claims presently subject to examination are in condition for allowance. Because the withdrawn claims depend from, and thus recite all features of, allowable claim 1, rejoinder and allowance of claims 7, 8 and 10-13 are respectfully requested.

Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1 and 3-6 under 35 U.S.C. §103(a) over U.S. Patent No. 4,232,135 to Bentley et al. ("Bentley"). Applicants respectfully traverse the rejection.

Claim 1 recites "[a] two-pack type plastisol composition, comprising: a liquid composition (LA); and a liquid composition (LB); wherein: the plastisol composition after mixing the compositions (LA) and (LB) has a gelation time, as measured at 30° C, of one hour or less; the liquid composition (LA) comprises fine acrylic polymer particles (A) and a plasticizer (B) as a dispersion medium in which the particles (A) are substantially insoluble at room temperature, provided that the dispersion medium (B) may have dissolving power to the particles (A) when heated; the liquid composition (LB) comprises an organic solvent (C) having sufficiently high dissolving power to dissolve the particles (A) at room temperature;

and the fine acrylic polymer particles (A) comprise fine acrylic polymer particles having a core/shell structure, the particles being obtained by an emulsion polymerization method or a soap-free polymerization method" (emphasis added). Bentley does not disclose or suggest such a composition.

Bentley discloses a two-pack system in which a condensation polymerization reaction between a dispersed phase including polyester particles and a curable liquid continuous phase is used. *See Bentley*, column 1, lines 56 to 68, column 2, lines 56 to 68. This system is quite different from the two-pack system of claim 1, which employs gelation. If a curing system employing a condensation polymerization reaction, as required by Bentley, is employed in a coating composition, the curing reaction causes heat generation, which, in turn, requires extreme caution in handling. The system of claim 1 does not necessitate such caution. Moreover, the polymer particles employed in the system of Bentley have a uniform structure – the particles are not core/shell particles, as recited in claim 1. As described in the present specification, particles having a core/shell structure allow for long pot life before the components of the two-pack system are mixed. *See present specification*, paragraph [0021]. Such desirable performance can be obtained because the core polymer has high solubility, while by the shell polymer has long pot life. *See present specification*, paragraph [0021]. Bentley does not disclose employing such particles, or recognize the benefits stemming therefrom.

The September 24, 2008 Advisory Action asserts:

With respect to feature (C), applicant's attention is drawn to column 3, lines 50-55 of Bentley et al where it states that "when a cured film is required to exhibit a full gloss, it may be advantageous if the microparticles can flow and such microparticles will be of the non-crosslinked type (column 3, lines 50-55). In cases where the polymer is not crosslinked it would be soluble in the continuous liquid phase (column 3, lines 38-40)." Thus, it is clear that Bentley et al disclose a microparticle that can be non-crosslinked and when non-crosslinked would be soluble in the continuous liquid phase i.e.

non-crosslinked polymer is a microparticle (i.e. it is insoluble in the dispersed phase) which is soluble in the continuous liquid phase and the continuous liquid phase is completed only shortly before application of a system to a substrate when provided as a two-pack system.

See September 24, 2008 Advisory Action, page 3. Applicants respectfully disagree. Bentley clearly discloses that the polymer microparticles present in the disperse phase are required to be insoluble in the continuous phase liquid. See Bentley, column 3, lines 32 to 44 ("... required insolubility ..."). Bentley states that "the polymer may be one which is inherently insoluble in the liquid in question; alternatively, it may be achieved by introducing a sufficient degree of crosslinking into a polymer which, if not crosslinked, would actually be soluble in the continuous phase liquid." See Bentley, column 3, lines 35 to 40 (emphasis added). That is, the only non-crosslinked type microparticles that are used in Bentley are those which are inherently insoluble in the liquid. This is easily understood from Bentley's disclosure that "the microparticles can flow and coalesce during the heat-curing process." See Bentley, column 3, lines 51 to 53. The microparticles, which are of a non-crosslinked type, maintain particle form at room temperature (30°C) and do not cause gelation whereby the microparticles would be soluble in the continuous phase liquid at that temperature. Rather, the non-crosslinked type microparticles of Bentley are inherently insoluble in the continuous phase liquid.

As discussed above and in Applicants' previous responses, Bentley does not disclose or suggest a "plastisol composition" at all. Moreover, the plastisol composition of amended claim 1, which includes fine acrylic polymer particles having a core/shell structure obtained by an emulsion polymerization method or a soap-free polymerization method is not remotely disclosed or suggested by Bentley.

As explained, claim 1 would not have been rendered obvious by Bentley. Claim 3-6 depend from claim 1 and, thus, also would not have been rendered obvious by Bentley. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For the foregoing reasons, Applicants submit that claims 1, 3-8 and 10-13 are in condition for allowance. Prompt reconsideration and allowance are respectfully requested.

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